

Date: Thursday, 4/12/2007 8:45:42 AM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : BRACKET ASSEMBLY
Job Number : 31728	
Estimate Number : 10279	
P.O. Number : <i>N/A</i>	Part Number : D3121143
This Issue : 4/12/2007 S.O. No. : <i>N/A</i>	Drawing Number : D3121 REV D
Prsht Rev. : NC	Project Number : N/A
First Issue : <i>N/A</i> Type : MACHINED PARTS	Drawing Revision : D
Previous Run : 31070	Material : <i>N/A</i>
Written By : _____	Due Date : 5/5/2007 Qty: 8 Um: Each
Checked & Approved By : <i>[Signature]</i> 07.04.12	
Comment : Est Rev: Pick: A 04.02.18 New issue KJ/DS	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	M174B1000X02000	17-4 SS Bar
-----	-----------------	-------------



Comment: Qty.: 0.3864 f(s)/Unit Total : 3.0912 f(s)
 Material: 17-4 SS Bar per AMS 5604/5643
 (M17-4-B1.000x02.000)
 Identify for D3121-113
 Batch: *M103089*

mk 07/04/29

8

2.0	BAND SAW	BAND SAW
-----	----------	----------



Comment: BAND SAW
 Cut blanks: (1.000" x 2.000") 4.425" long

mk 07/04/29

8

3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
-----	-------	--------------------------------



Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine D3121-113 as per Folio FA330 and Dwg D3121
 Identify as D3121-113

2-Deburr

3-Scribe batch number

mk 07/04/30

8

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

mk 07/04/30

8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes (No) DQA: *AE* Date: 07/05/03

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 4/12/2007 8:45:42 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 31728

Part Number: D3121143

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

SG 07.04.30

8

6.0

D312121

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D3121-21 Bolt B31758

ml 07/04/30

8

7.0

D3121241

Bearing Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D3121-241 Bearing Ass B31700

ml 07/04/30

8

8.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble D3121-143 as per Dwg D3121.

ml 07/04/30

8

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

En 07/05/02 (x8)

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 57233

PO 7/5/02 (8)

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

PO 07/05/03

Job Completion



U 07/05/03

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 31728
Description: Bracket		Part Number: D3121-113
Inspection Dwg: D3121 Rev: D		Page 1 of 2

FIRST ARTICLE INSPECTION CHECKLIST

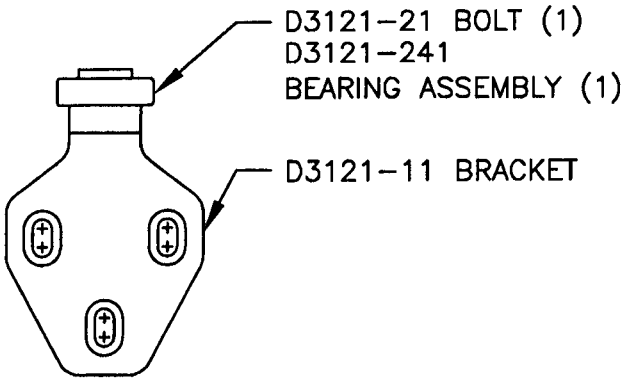
☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.080	+/-0.010	0.079	—			
0.300	+/-0.010	0.300	—			
R0.375	+/-0.010	R0.375	—			
1.54	+/-0.030	1.543	—			
0.350	+/-0.010	0.351	—			
R0.250	+/-0.010	R0.250	—			
1.800	+/-0.030	1.793	—			
Ø0.392	+0.002/-0.000	Ø0.393	—			
Ø0.201	+0.005/-0.000	Ø0.201	—			
0.100	+/-0.010	0.096	—			
2.540	+/-0.010	2.541	✓			
1.590	+/-0.010	1.590	—			
0.160	+/-0.010	0.159	—			
0.400	+/-0.010	0.390	—			
1.220	+/-0.010	1.210	—			
1.600	+/-0.010	1.594	—			
3.80	+/-0.030	3.795	—			
1.800	+/-0.010	1.793	—			
R0.500	+/-0.010	R0.500	—			
0.130	+/-0.010	0.130	—			
3.41	+/-0.030	3.410	—			
3.65	+/-0.030	3.635	—			
2.24	+/-0.030	2.225	—			
45°	+/-0.1°	45°	—			
R0.250	+/-0.010	R0.250	—			
3.97	+/-0.030	3.969	—			
R0.38	+/-0.030	R0.375	—			
Ø0.392	+0.002/-0.000	Ø0.393	—			
Ø0.201	+0.005/-0.000	Ø0.201	—			
0.100	+/-0.010	0.098	—			
0.268	+/-0.010	0.265	—			
R0.260	+/-0.010	R0.260	—			
0.080	+/-0.010	0.082	—			
0.300	+/-0.010	0.301	—			

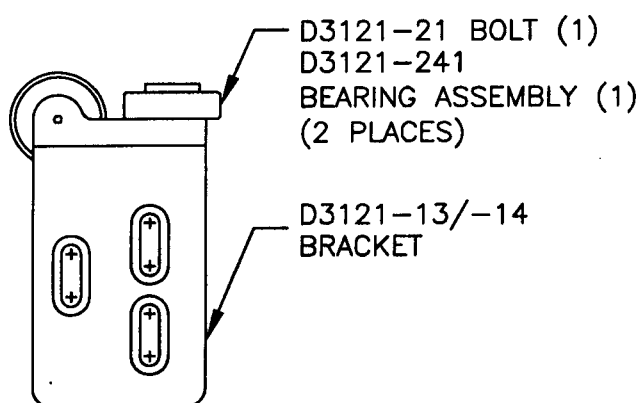


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CHECKED	APPROVED	DRAWING NO.	REV. D
		D3121	SHEET 1 OF 10
DATE		TITLE	SCALE
06.05.17		BRACKET ASSEMBLY	1:2
A	02.04.15	NEW ISSUE	
B	03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146	
C	04.02.17	ADD CLEARANCE; USE -241 BEARING	
D	06.05.17	D3121-25 CAP WAS 1.024, NOW 1.000	

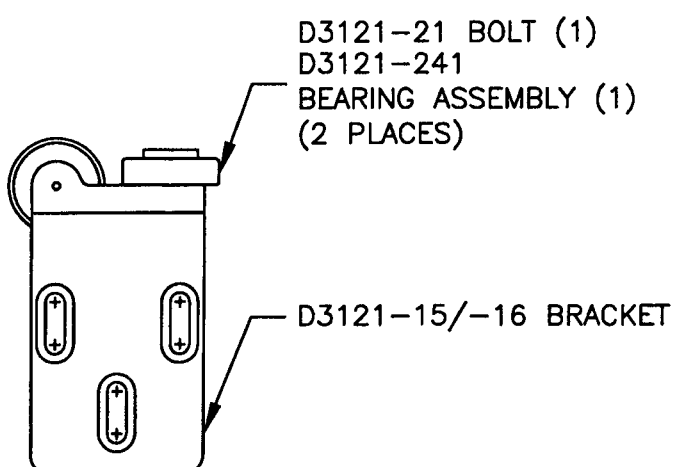
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06.06.02



D3121-041 BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23000-33)



D3121-043 (SHOWN) / D3121-044 (OPPOSITE) BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23000-37/-38)



D3121-045 (SHOWN) / D3121-046 (OPPOSITE) BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23000-35/-36)

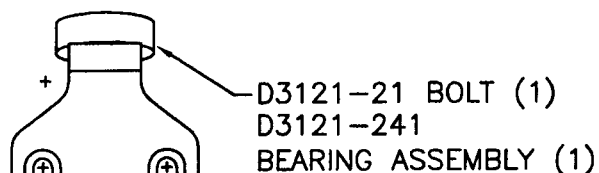
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DATE 06.05.17	TITLE BRACKET ASSEMBLY		SCALE 1:2

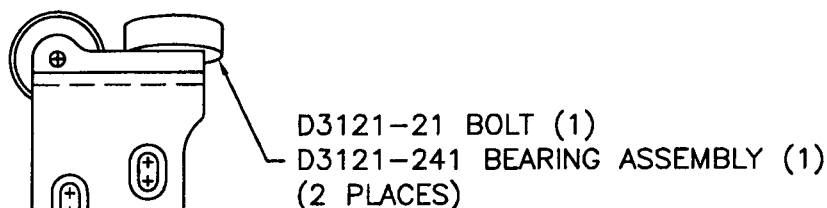


D3121-111 BRACKET

D3121-141 BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23001-01)

RELEASED

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D3121-113/-114 BRACKET

**D3121-143 (SHOWN) / D3121-144 (OPPOSITE)
BRACKET ASSEMBLY**
(REPLACES PREMIER P/N B30-23000-03/-04)



D3121-115/-116
BRACKET

**D3121-145 (SHOWN) / D3121-146 (OPPOSITE)
BRACKET ASSEMBLY**
(REPLACES PREMIER P/N B30-23000-05/-06)

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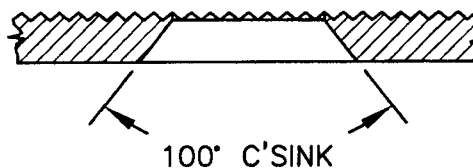
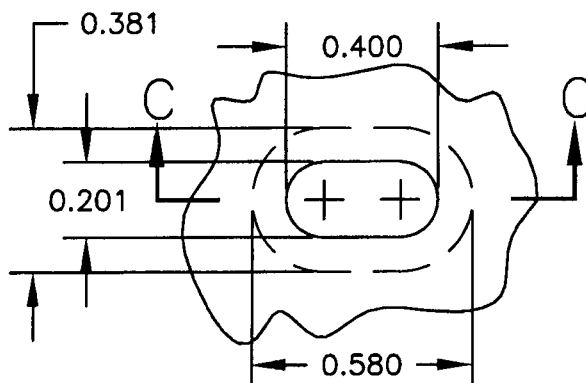
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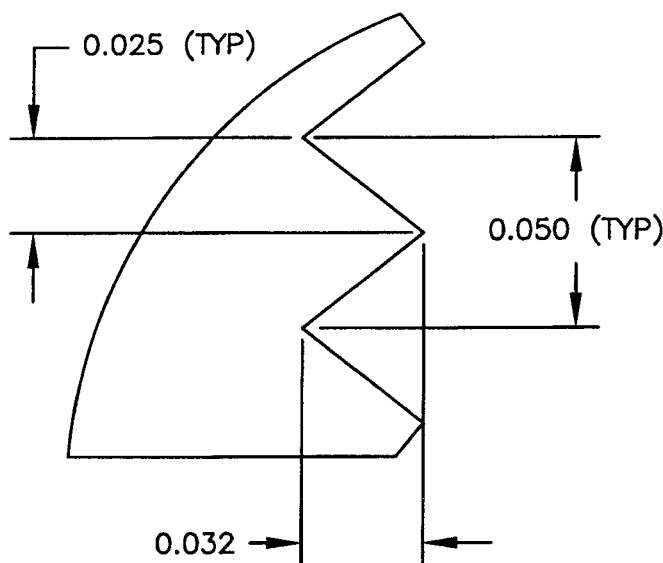


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DATE 06.05.17	TITLE BRACKET ASSEMBLY		SCALE 1:1

DETAIL A:
SLOT DETAIL
SCALE 2:1
VIEW ROTATED



DETAIL B:
RIDGE DETAIL
PARTIAL SECTION
SCALE 1:20



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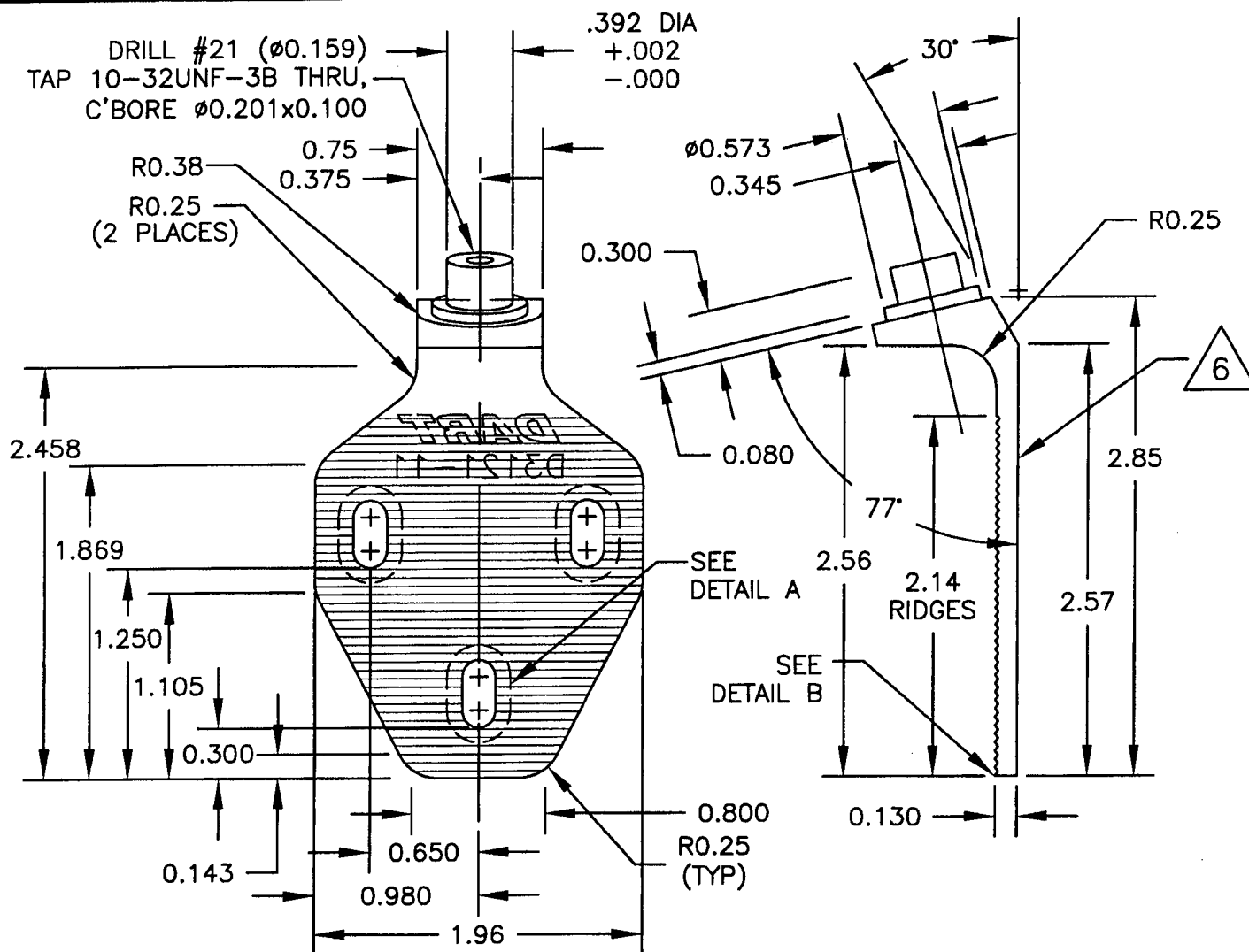
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DATE 06.05.17		TITLE BRACKET ASSEMBLY	SCALE 1:1

**D3121-11 BRACKET**

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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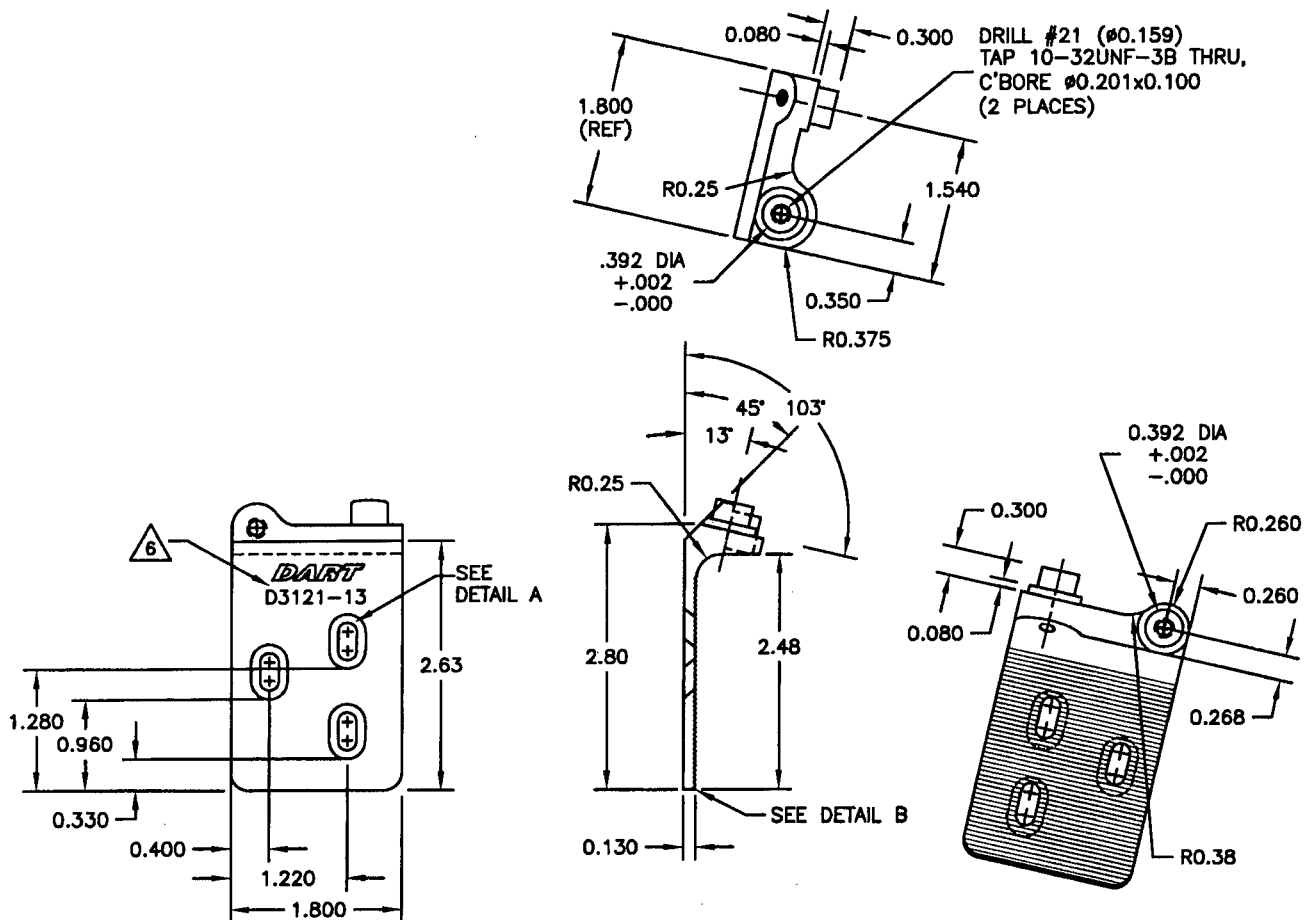
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DATE 06.05.17		TITLE BRACKET ASSEMBLY	SCALE 1:2

**D3121-13 BRACKET (SHOWN)****D3121-14 BRACKET (OPPOSITE)**

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE STRENGTH = 150 ksi
MIN YIELD TENSILE STRENGTH = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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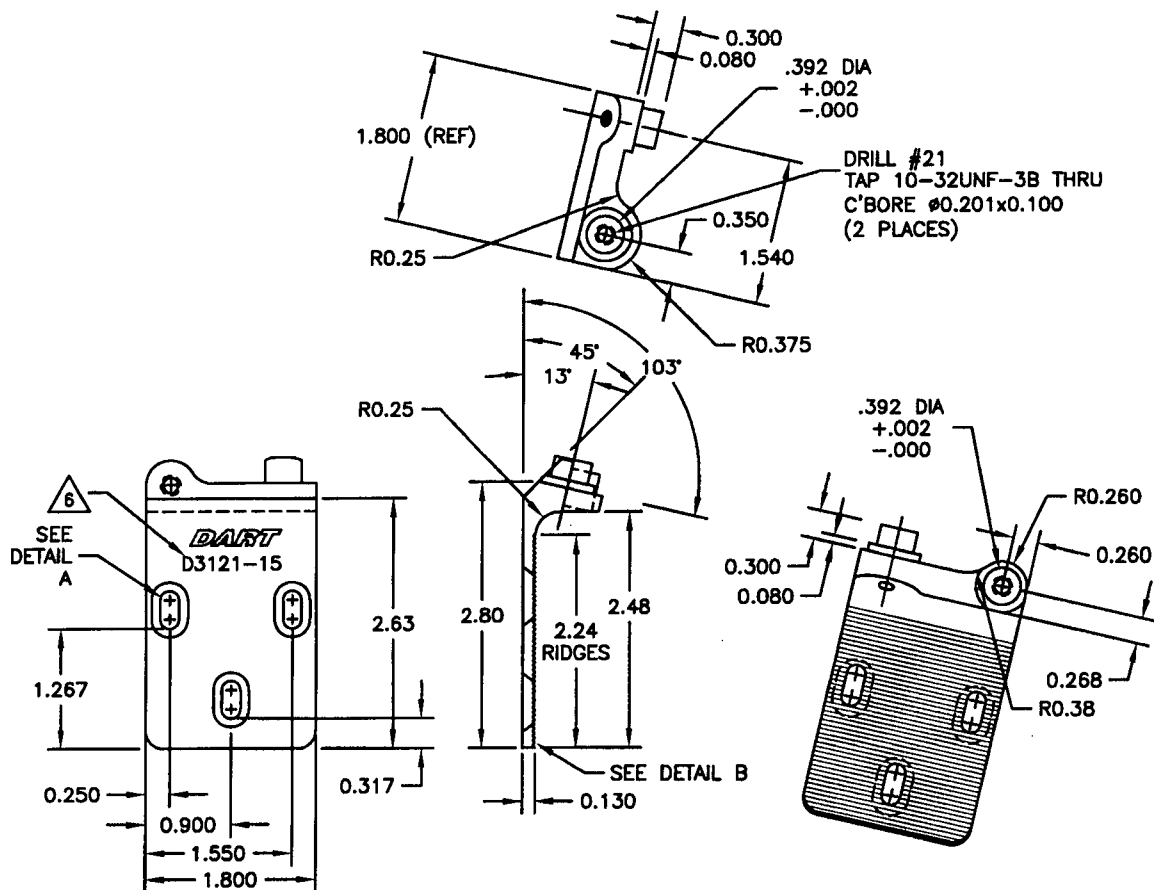
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DATE 06.05.17		TITLE BRACKET ASSEMBLY	SCALE 1:2



D3121-15 BRACKET (SHOWN)
D3121-16 BRACKET (OPPOSITE)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N AND LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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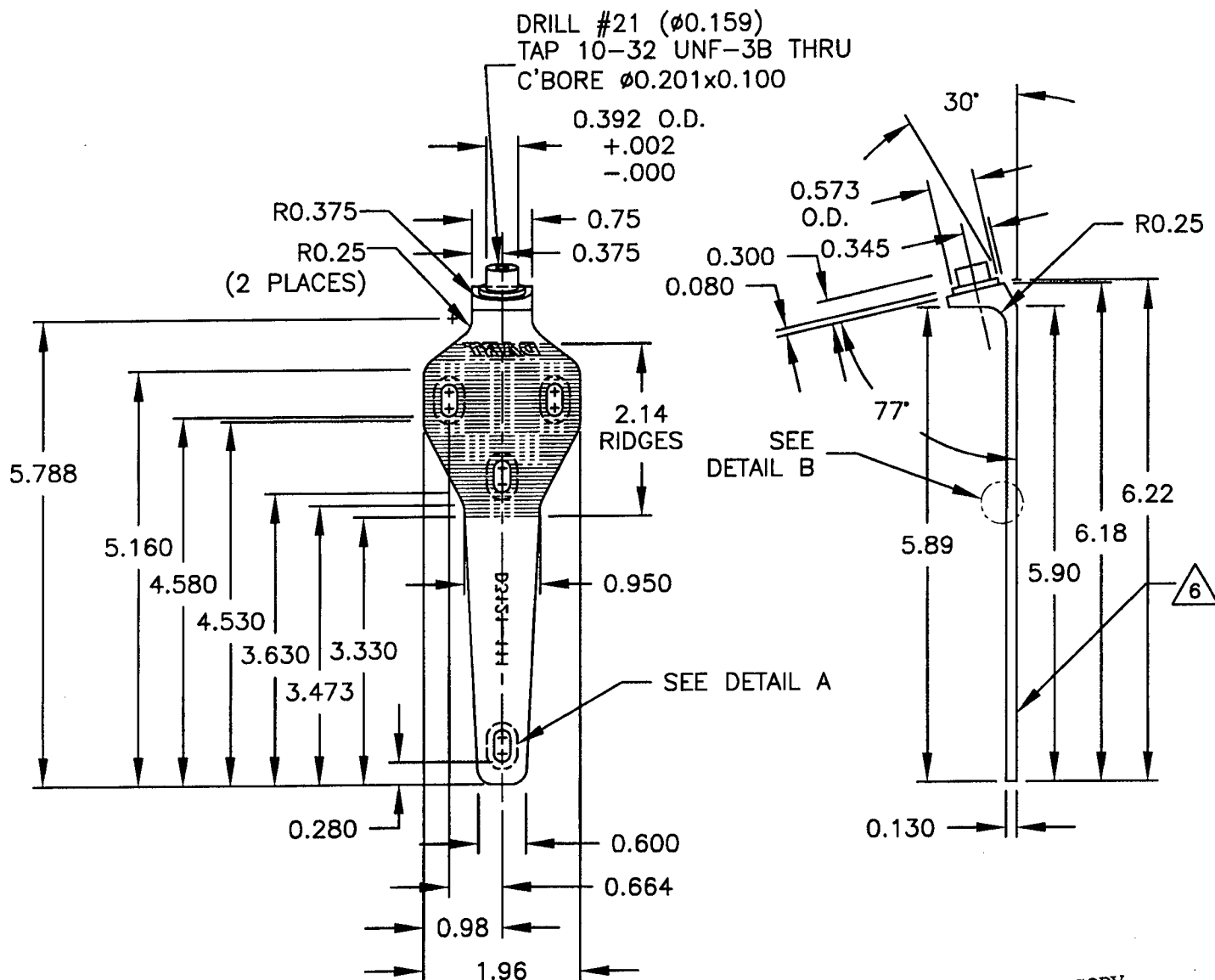
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DATE 06.05.17	TITLE BRACKET ASSEMBLY		SCALE 1:2



D3121-111 BRACKET

- 1) REPLACES PREMIER P/N B32-23001-11
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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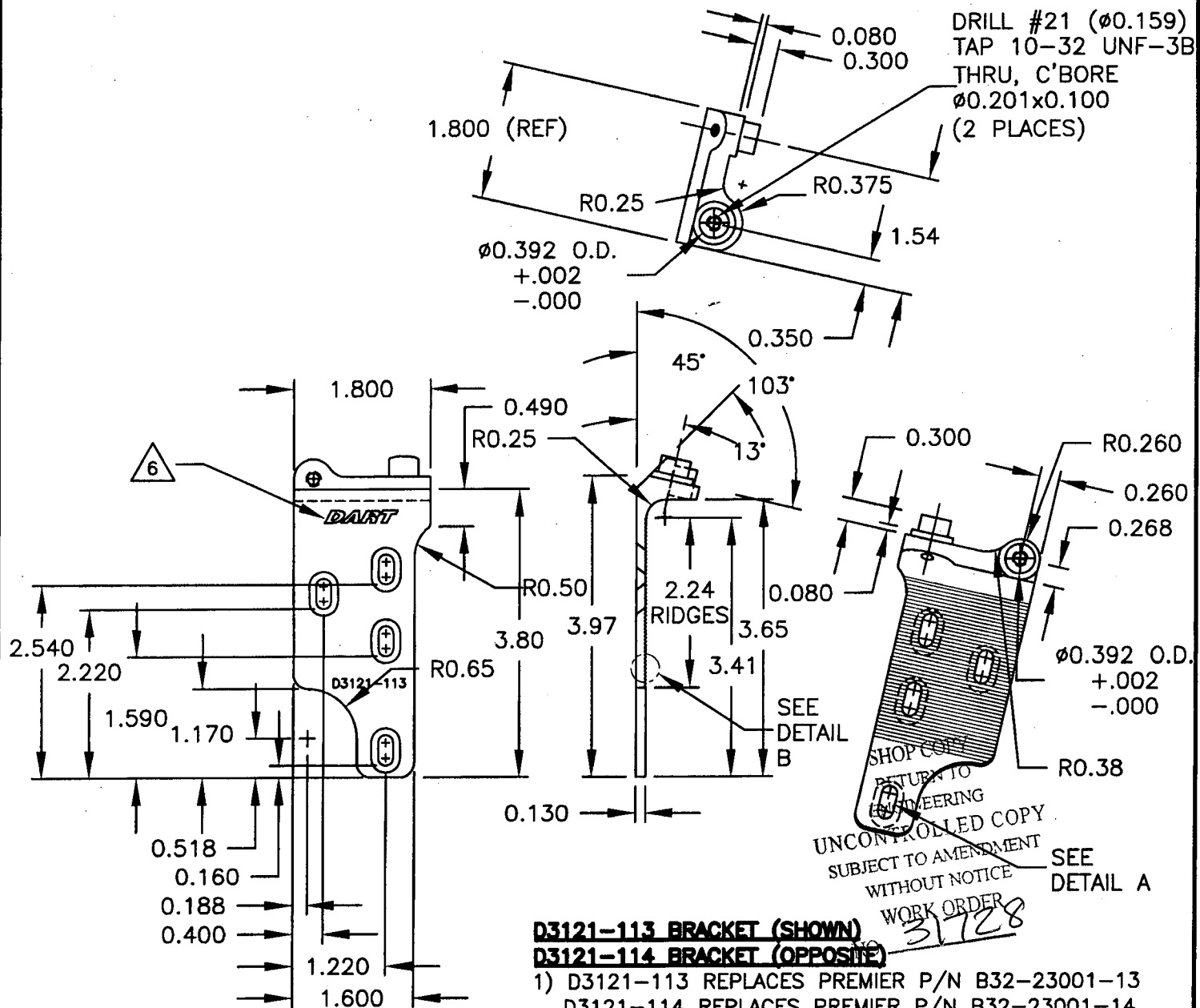
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CHECKED #	APPROVED #	DRAWING NO. D3121	REV. D SHEET 8 OF 10
DATE 06.05.17		TITLE BRACKET ASSEMBLY	SCALE 1:2



D3121-113 BRACKET (SHOWN)
D3121-114 BRACKET (OPPOSITE)

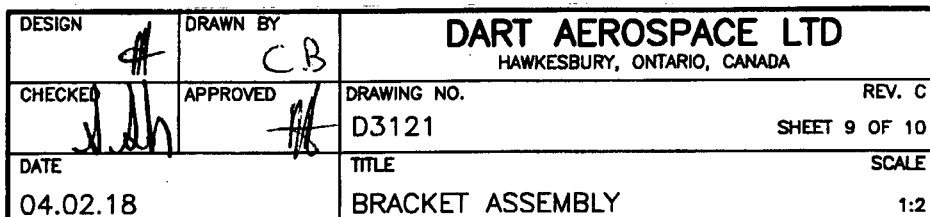
- 1) D3121-113 REPLACES PREMIER P/N B32-23001-13
D3121-114 REPLACES PREMIER P/N B32-23001-14
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE STRENGTH = 150 ksi
MIN YIELD TENSILE STRENGTH = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

RELEASE

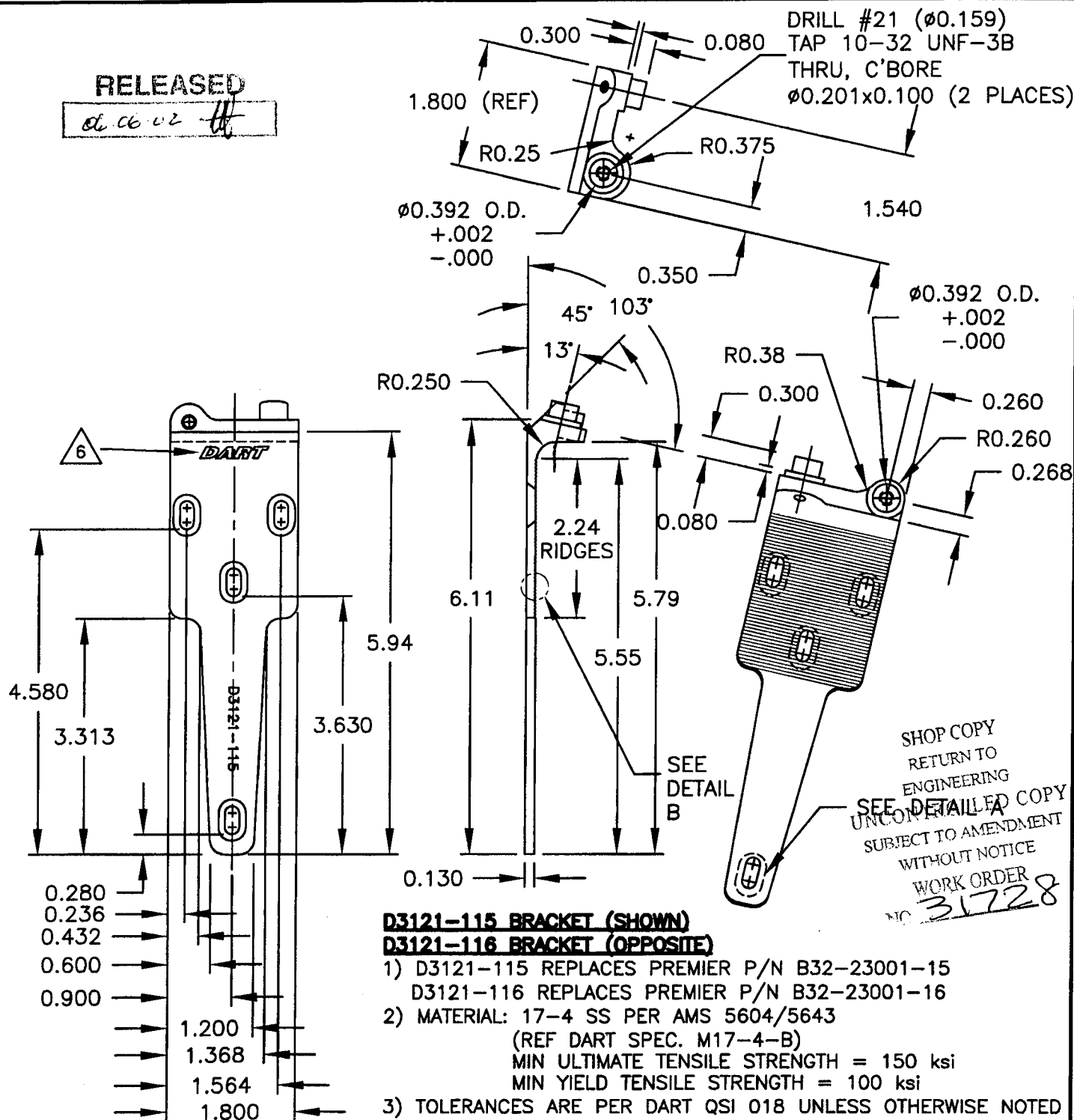
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06.06.02 *[Signature]*



D3121-115 BRACKET (SHOWN)
D3121-116 BRACKET (OPPOSITE)

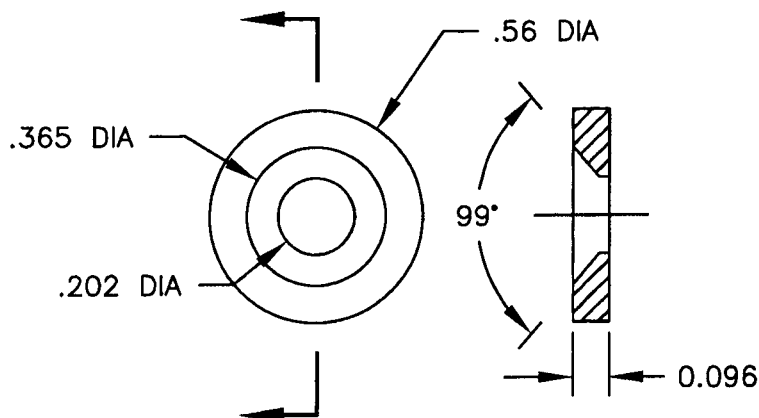
- 1) D3121-115 REPLACES PREMIER P/N B32-23001-15
D3121-116 REPLACES PREMIER P/N B32-23001-16
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE STRENGTH = 150 ksi
MIN YIELD TENSILE STRENGTH = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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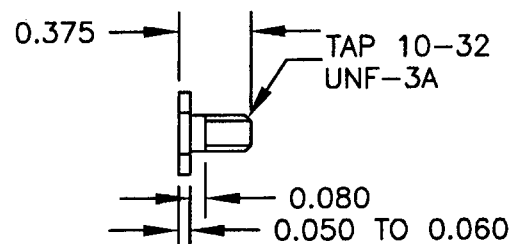
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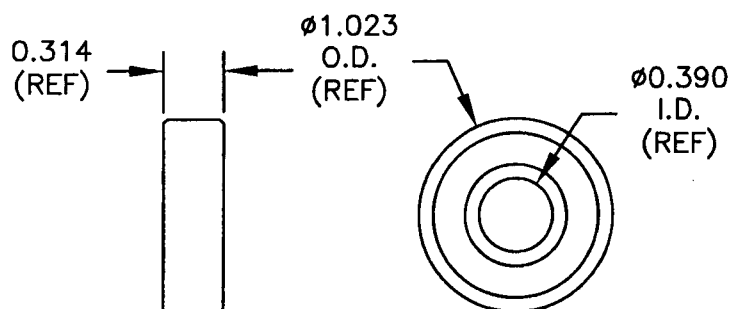
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DATE 06.05.17	TITLE BRACKET ASSEMBLY		SCALE 1:1

**D3121-17 WASHER (SCALE 2:1)**

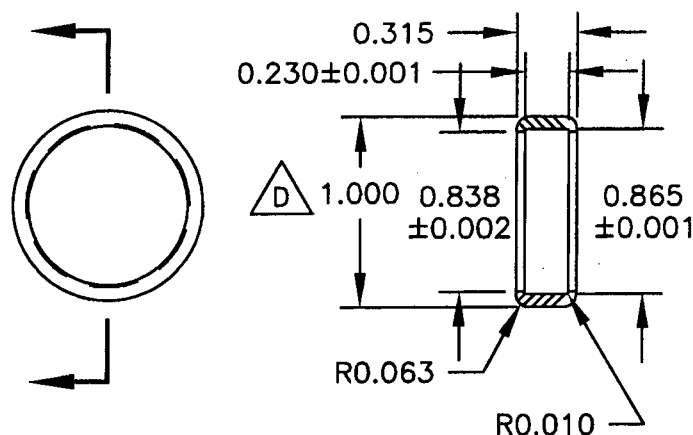
- 1) REPLACES PREMIER P/N B32-23001-17
- 2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015

**D3121-21 BOLT (SCALE 1:1)**

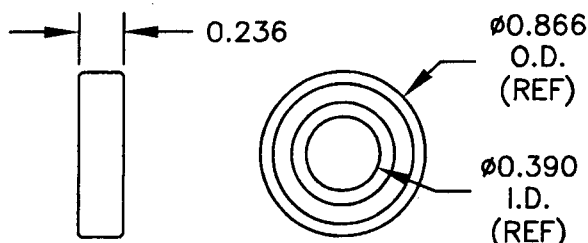
- 1) MATERIAL: AISI 303 SS HEX, ANNEALED (REF DART SPEC. M303H0.500)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015

**D3121-19 BEARING (SCALE 1:1)**

- 1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM FAFNIR P/N 9100KDD
- 2) ALL DIMENSIONS ARE IN INCHES

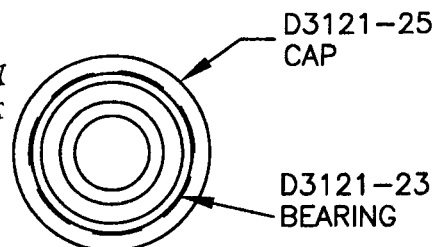
**D3121-25 CAP (SCALE 1:1)**

- 1) MATERIAL: DELRIN ROD, Ø1.25 (REF DART SPEC. M-DELIN-R1.250)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

**D3121-23 BEARING (SCALE 1:1)**

- 1) POSSIBLE SUPPLIER: SKF P/N 61900-2Z OR KML P/N 6900-ZZ
- 2) ALL DIMENSIONS ARE IN INCHES

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**D3121-241 BEARING ASSEMBLY (SCALE 1:1)**

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